

Question & Answer with Dr. Robert L. Jacobs, Principal Investigator, Biogenics Research Institute, San Antonio, Texas.

Q: What are your thoughts on airborne anaphylaxis? Can it happen?

A: Yes, it can. I personally know of three cases of airborne anaphylaxis to foods, and there are several case reports in the literature.

Q: Can you tell me about these cases?

A: Two individuals went into anaphylaxis after inhaling shrimp that was cooking on a table-top grill about ten feet away from where they were seated. A third person experienced the same thing while being in the car with someone who opened a bag of sunflower seeds. All three of these individuals had experienced systemic symptoms with their respective allergens but had never experienced anaphylaxis.

Q: Do you think the continued presence of peanuts or tree nuts on planes is putting people's lives at risk?

A: Yes, the problem exists as peanuts are passed out to passengers over a period of time (15-20 minutes) and the bags are opened over a similar period. The aerosolized peanut dust is so small that it most likely won't be picked up entirely by the plane's filtration system. These proteins will then build up over time. This dust is likely to cause more severe symptoms than an ingested peanut because of the amount of surface allergen exposed in the dust versus the chewed peanut. For example, if you slice an apple in half you've doubled the surface area which can lead to more exposure.

Q: At what levels does it require someone to react?

A: This will vary from person to person.

Q: Do you think it's possible for someone to react to a single bag of nuts?

A: This is possible depending upon the level of sensitivity and the proximity to the single bag of peanuts.

Q: There isn't much scientific data to understand what happens when someone opens a bag of nuts on a plane? Why do you think this is?

A: The Institutional Review Board (IRB), the governing body that approves scientific studies and protects the rights of people involved in them, would not allow people to participate in this type of study. It's too dangerous and it would put people's lives at risk. It's also very difficult to study because the proteins are so small. How do you collect them?

Q: When it comes to flying with a nut allergy, what, in your opinion, is the best solution?

A: I believe the best approach would be to notify the airline ahead of time so they could suspend service of nuts on that particular flight and make an announcement. The problem with a buffer zone is that it could cause a false sense of security. Planes are also difficult to clean so the less fabric the better. Leather seats are best.

Thank you Dr. Jacobs for your insight and your continued work in this area.